

[DO NOT PUBLISH]

IN THE UNITED STATES COURT OF APPEALS  
FOR THE ELEVENTH CIRCUIT

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No. 16-11968  
Non-Argument Calendar

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D.C. Docket No. 2:13-cv-00075-WCO

KIRK KNOUS,  
as Executor of the Estates of James Judson, Jr.,  
Deceased, and Elizabeth Ann Judson Deceased,  
DEAN JUDSON,  
Individually and as Survivor of James Judson, Jr.,  
Deceased, and Elizabeth Ann Judson, Deceased,  
LAUREN JUDSON,  
Individually and as Survivor of James Judson, Jr.,  
Deceased, and Elizabeth Ann Judson, Deceased,

Plaintiffs-Appellants,

versus

UNITED STATES OF AMERICA,

Defendant-Appellee.

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Appeal from the United States District Court  
for the Northern District of Georgia

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(March 31, 2017)

Before MARCUS, JULIE CARNES and JILL PRYOR, Circuit Judges.

PER CURIAM:

Kirk Knous, Lauren Judson, and Dean Judson (collectively “the appellants”) appeal from the district court’s entry of judgment in favor of the United States in their wrongful death action brought under the Federal Tort Claims Act, 28 U.S.C. § 1346(b) (“FTCA”), following a bench trial. In the complaint, the appellants alleged that the Federal Aviation Administration (“FAA”) breached its duty of care in providing control services to pilot James Judson (“Judson”), resulting in a plane crash that killed Judson and his wife and sole passenger, Elizabeth. Specifically, the appellants claimed that Kenneth Dech, an air traffic controller at Memphis Air Route Traffic Control Center (“Memphis Center”), did not relay to Judson observed weather,<sup>1</sup> which caused him to approach a line of extreme precipitation that broke apart the plane in flight. After the district court denied the United States’ motion for summary judgment, the court held a seven-day bench trial.

Following the bench trial, the district court concluded, as a matter of law, that Dech had no duty to report observed weather or provide vectoring services to Judson, and he acted reasonably in the circumstances. The court also made a factual finding that the evidence did not demonstrate that weather caused the in-flight breakup of the plane. On appeal, the appellants argue that the district

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<sup>1</sup> Observed weather is weather depicted on an air traffic controller’s radioscope, while reported weather is a description of weather conditions received from a pilot.

court misinterpreted the duty owed by air traffic controllers and clearly erred in finding that they failed to prove causation. After careful review, we affirm.

I.

The district court made the following findings of fact, which are supported by the record. At 8:55 a.m. the morning of the accident, the National Weather Service's ("NWS") Aviation Weather Center issued two Convective SIGMETs<sup>2</sup> for the Memphis area and surrounding states. SIGMET 23C warned of a line of weather 40 miles east of Memphis, and SIGMET 24C warned of a larger formation west of Memphis that was moving northeasterly. The formations were parallel lines of cumulus clouds running from Tennessee through Alabama with cloud tops of up to 27,000 feet. The Judsons' daughter, Lauren, said the weather "looked horrible" in Memphis that morning. While the weather was described as "rapidly changing," the general character of SIGMET 23C did not change during the Judsons' flight. Radar data for 8:49 a.m. showed that the weather formations had already developed. A blanket broadcast of the SIGMETs occurred at 9:24 a.m.

At 9:05 a.m., pilot Judson contacted Lockheed Martin Flight Service Station ("FSS") to file an instrument flight rule ("IFR") flight plan. He spoke with a flight service specialist, who twice asked if he had the latest adverse conditions for his

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<sup>2</sup> SIGMETs are aviation weather advisories issued every hour at 55 minutes past the hour and when necessary for pilots who are checking onto a frequency. SIGMETs are applicable for two hours from the time they are issued.

route. Judson told the specialist he had the latest conditions, and he planned to depart Olive Branch Airport (“KOLV”) for DeKalb-Peachtree Airport (“PDK”) at about 9:20 a.m. due to the weather. His plane was equipped with two Garmin 430w XM radar devices that gave graphical information on weather surrounding the plane for the purpose of long-range planning. The devices provided delayed weather data that was not suitable for short-range avoidance of weather. At the time of takeoff, Judson departed between the weather formations described in SIGMETs 23C and 24C. However, Judson’s flight plan took him through the weather formation described in SIGMET 23C.

Shortly after takeoff, Judson made radio contact with the Memphis Center, where Dech held primary responsibility for the sector of airspace in which the Judsons were travelling. Dech was equipped with Next-Generation Radar (“NEXRAD”) imagery, which is created from several 360-degree radar sweeps at different elevations to measure precipitation intensity. NEXRAD does not depict altitude or turbulence, and it takes four to five minutes to conduct radar scans, compile them, and transmit them to display systems. Dech also had access to a Weather and Radar Processor technology (“WARP”) display, which picks out three groups of reflectivity data and displays them on the controller’s screen in a distinguishable color scheme showing moderate, heavy, and extreme precipitation.

At 9:26 a.m., Dech was directing a Cirrus aircraft flying directly to PDK that sought to deviate from his course into a pilot-described hole in the line of weather associated with SIGMET 23C. Dech had informed the Cirrus pilot that the weather ahead was “an area of moderate heavy and extreme precipitation” from Jackson, Tennessee, to Greenwood, Mississippi. At 9:37 a.m., the Cirrus reported having successfully made it through the weather and returned to its course. Seconds later, pilot Judson checked onto Dech’s frequency and acknowledged his flight path to PDK. Dech then provided pilot Judson with a pilot report of actual weather conditions encountered by a plane in flight (“PIREP”) that the cloud tops ahead were estimated at 17,000 feet. Judson sought a flight level of 21,000 feet in order to fly above the weather, which Dech approved with a temporary hold at 17,000 feet for traffic. At 9:38 a.m., Dech told Judson, “[A]s you approach that weather if you need to deviate advise center.”

Dech then solicited another PIREP from the Cirrus aircraft that had passed through SIGMET 23C about 25-40 miles ahead of the Judsons’ plane, and he told pilot Judson to “listen up.” The Cirrus PIREP reported light turbulence and about a one-minute period of heavy rain, then the plane flew through a gap in the weather at an altitude of 9,000 feet. Dech told Judson that a lower altitude might be fine, but said he would approve whatever Judson chose to do. Judson acknowledged the PIREP and replied that he would go to the next layer to see if he could get above

the weather. At 9:39 a.m., Dech had Judson amend his altitude to 15,000 feet for traffic; Dech had several planes approaching other airports in his airspace and circling in holding patterns around Memphis, and an FAA flight check aircraft, which receives priority status for controller directives, was in his airspace.

At 9:40 a.m., Dech cleared pilot Judson to climb to 19,000 feet. At 9:42 a.m., Judson reported breaking through cloud tops at 9,200 feet. Dech then issued another PIREP to Judson concerning “light rime icing” at 17,000 feet, and Judson responded that he would turn on his deicing system. At 9:43 a.m., Dech amended Judson’s altitude to 13,000 feet for traffic separation. At 9:46 a.m., Judson requested a 15-degree deviation to the right of his course. Although Judson did not specify the reason for the deviation, he likely sought to deviate in an attempt to avoid clouds or weather along his flight path. Dech approved the deviation to the right and left. Judson confirmed the deviation to the right at 9:47 a.m. At 9:50 a.m., Dech cleared Judson to climb and maintain his originally requested flight level of 21,000 feet. At 9:55 a.m., Dech requested a radio check by the Judsons’ plane several times until losing radar contact and determining that the plane had likely gone down.

The Judsons’ plane came apart in flight and crashed near Rienzi, Mississippi. The wreckage spread 14-15 miles, with all of the heavy pieces found close to the location of the in-flight breakup. Pilot Judson had deviated more than

the requested 15 degrees from his course to compensate for crosswinds and flew into an area of extreme precipitation.

## II.

After a bench trial, we review the district court's conclusions of law de novo and its factual findings for clear error. Tartell v. S. Fla. Sinus & Allergy Ctr., Inc., 790 F.3d 1253, 1257 (11th Cir. 2015). The nature and extent of the duty of care that air traffic controllers owe pilots and their passengers is a question of law. Daley v. United States, 792 F.2d 1081, 1085 (11th Cir. 1986). A district court's findings on the questions of negligence and causation are reviewed for clear error. Superior Const. Co. v. Brock, 445 F.3d 1334, 1339 (11th Cir. 2006). We will only find the district court committed clear error if after assessing the evidence, we are left with a definite and firm conviction that a mistake has been committed. Id.

Under the FTCA, the United States is subject to liability in a tort action in the same manner and to the same extent that a private individual would be under the law of the place where the tort occurred. Daniels v. United States, 704 F.2d 587, 591 (11th Cir. 1983); 28 U.S.C. § 1346(b)(1). Thus, to determine liability under the FTCA, courts must look to the law of the state where the act or omission occurred, Daniels, 704 F.2d at 591, which here was Tennessee.<sup>3</sup>

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<sup>3</sup> The district court made no choice-of-law determination as to the elements of negligence because all states at issue -- Tennessee, Georgia, and Mississippi -- use the same framework. However, the parties agree that Tennessee law applies.

In Tennessee, a plaintiff in a negligence action must prove that: (1) the defendant owed the plaintiff a duty of care; (2) the defendant breached the duty because his conduct fell below the applicable standard of care; (3) the plaintiff sustained injury or loss; (4) the defendant's breach was the factual cause of the injury or loss; and (5) the defendant's breach was the proximate, or legal, cause of the injury or loss. Burroughs v. Magee, 118 S.W.3d 323, 327-28 (Tenn. 2003).

The duty of care owed is "reasonable care under all of the circumstances." West v. E. Tenn. Pioneer Oil Co., 172 S.W.3d 545, 550 (Tenn. 2005). We've said that air traffic controllers and pilots have a concurrent duty to exercise due care to avoid accidents. Daley, 792 F.2d at 1085. "The government's duty to provide services with due care to airplane pilots may rest either upon the requirements of procedures manuals spelling out the functions of its air traffic controllers or upon general pilot reliance on the government for a given service." Gill v. United States, 429 F.2d 1072, 1075 (5th Cir. 1970).<sup>4</sup> A defendant has breached his duty to the plaintiff if he fails to exercise reasonable care. West, 172 S.W.3d at 550.

In this case, the district court did not err in its legal determination that Dech did not have a duty to provide pilot Judson with observed weather or issue vectoring assistance. For starters, the FAA Air Traffic Control Manual ("ATCM") provides that the primary purpose of the air traffic controller system is to prevent

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<sup>4</sup> In Bonner v. City of Prichard, 661 F.2d 1206, 1209 (11th Cir. 1981) (en banc), we adopted as binding precedent all Fifth Circuit decisions issued before October 1, 1981.



collision between aircraft and organize and expedite the flow of traffic. Controllers are required to stay aware of current, pertinent weather information and provide additional services, like weather reporting, “to the extent possible, contingent only upon higher priority duties and other factors . . . .” Paragraph 2-6-4 of the ATCM requires controllers to provide pilots with “pertinent information on observed/reported weather.”

Based on this manual, the district court concluded that Dech’s duty of care required him to report observed or reported weather to Judson. The district court then determined that Dech satisfied his duty by providing pilot Judson with reported weather in the form of three PIREPs. As the court found, the most detailed PIREP came from the Cirrus aircraft that was 25-40 miles ahead of the Judsons’ plane on its way to the same airport and flying through the weather formation described in SIGMET 23C, which was pertinent information for the Judsons’ flight. In addition, Dech’s sector became increasingly busy during the Judsons’ flight, and he was required to prioritize separating planes and directing an FAA flight check aircraft over providing weather information.

On appeal, the appellants acknowledge that ¶ 2-6-4 of the ATCM requires air traffic controllers to issue “observed/reported” weather, but they claim the district court erred in concluding that the slash punctuation in the phrase meant “or.” We disagree. Courts have repeatedly recognized that a slash, solidus, or

virgule is used to separate alternatives. See Matusick v. Erie Cty. Water Auth., 757 F.3d 31, 72 n.5 (2d Cir. 2014) (citing Webster's New World Dictionary to note that a "virgule" indicates that either word separated by the symbol is applicable); Heritage Bank v. Redcom Labs., Inc., 250 F.3d 319, 326 & n.6 (5th Cir. 2001) (citing the American Heritage Dictionary of the English Language 1922 definition of "virgule" as a mark used to separate alternatives); Dynalelectron Corp. v. Equitable Trust Co., 704 F.2d 737, 739 & n.3 (4th Cir. 1983) (noting that a Georgia appellate court had relied on the Webster's New International Dictionary definition of "virgule" to declare that the symbol "connotes the disjunctive or the alternative"). The appellants also claim that ¶ 2-6-4 instructs controllers to issue observed weather in certain terms, and Dech failed to use those terms. But the appellants have offered nothing to show that Dech could not satisfy the requirements of ¶ 2-6-4 by providing pilot Judson with reported, rather than observed, weather through PIREPs. Nor have they shown that the district court erred by finding that because PIREPs are provided by the pilots in actual conditions and not the controllers, they cannot be limited to certain phraseology.<sup>5</sup>

The appellants next claim that a 2006 FAA memorandum required Dech to relay the weather data depicted on his radar, but we are unpersuaded. The

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<sup>5</sup> As for the appellants' argument -- raised for the first time in their reply brief -- based on ¶ 2-6-3, we do not address arguments raised for the first time in a reply brief. Herring v. Sec'y, Dep't of Corr., 397 F.3d 1338, 1342 (11th Cir. 2005).

memorandum addressed circumstances where controllers did not provide radar-displayed weather information when they lacked confidence in the accuracy of the weather display. While it noted that ¶ 2-6-4 requires controllers to issue “observed/reported weather,” it did not address whether that requirement is fulfilled where a controller provides PIREPs and not radar-observed weather. Nor do FAA training PowerPoint slides referenced by the appellants demonstrate a requirement that controllers issue observed weather. The slides explained that, under ¶ 2-6-4, controllers are obligated to provide “observed/reported weather.” Thus, neither the 2006 FAA memorandum nor the slides change our conclusion.

We are also unconvinced by the appellants’ argument that there was a duty to issue the observed weather based on 22 controller deficiency reports from the Operational Skills Evaluation Team (“OSET”) that the Memphis Center had received for not providing observed adverse weather. For one, the reports are not in the record, and it is not clear why the OSET determined that failure to issue observed weather constituted a deficiency in those cases. As a result, these reports do not demonstrate that observed weather must be issued in all circumstances.

As for the appellants’ argument that the FAA Air Traffic Control Manual is just a “floor” on conduct, and that a reasonable air traffic controller would have reported the observed extreme precipitation to pilot Judson, we are unpersuaded. As the district court found, pilot Judson was aware of SIGMET 23C, and he had

access to weather radar for the purpose of long-range planning before and during his flight. Nothing in the record indicates that the line of weather associated with SIGMET 23C did not include extreme precipitation prior to the flight, and the general structure of the line did not change. Under the circumstances, the district court did not err in concluding that it was not unreasonable for Dech to provide specific weather reports regarding precipitation, turbulence, cloud height, and icing conditions from aircraft in and around the line, rather than a big-picture description of precipitation of which pilot Judson was aware. West, 172 S.W.3d at 550.<sup>6</sup>

Nor did the district court err in concluding that Dech acted reasonably in light of testimony from Dech and his supervisor. While Dech's supervisor testified in a deposition that he would have advised pilot Judson of the observed weather, the supervisor also recognized that he was not certain of the extent of Dech's other responsibilities at that point, and added that he might not have provided the observed weather at the time of the accident. The appellants point to Dech's testimony that he was not surprised to learn that his supervisor did not think his workload was too heavy to provide weather information, but Dech testified that he provided pilot Judson with weather information in the form of PIREPs.

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<sup>6</sup> The appellants also argue that the district court's duty determination was contrary to its summary judgment ruling, but the court denied that motion because issues of material fact existed as to Dech's duty. The facts were clarified at the bench trial, and, accordingly, a finding in favor of the government at that stage was not inconsistent with the court's prior ruling. Ortiz v. Jordan, 562 U.S. 180, 184 (2011) ("Once the case proceeds to trial, the full record developed in court supersedes the record existing at the time of the summary-judgment motion.").

Accordingly, this testimony did not demonstrate that the district court erred by concluding that Dech did not have a duty to issue observed weather.

Even if the district court did not err in concluding that Dech did not have a duty to issue observed weather, the appellants argue that issuance of the PIREPs did not satisfy whatever duty Dech had because the PIREPs were misleading. They say that the initial PIREP was misleading because it described cloud tops of 17,000 feet, and SIGMET 23C indicated that cloud tops reached up to 27,000 feet. However, the district court made a factual finding that pilot Judson was aware of SIGMET 23C prior to his departure because: (1) he likely witnessed the weather on the way to the airport; (2) he twice turned down weather briefings from a flight service specialist and was aware of SIGMET 24C; (3) he prepared for flight after the SIGMETs were issued; and (4) he never appeared unfamiliar with the weather on the controller frequency. Because these findings are supported by the record and not clearly erroneous, we defer to the district court's finding that pilot Judson was aware of SIGMET 23C, and, thus, was not misled about the possibility of cloud tops at 27,000 feet. Superior Const. Co., 445 F.3d at 1339. Nor was the PIREP from the Cirrus aircraft misleading simply because it came from a different aircraft that was flying at a different altitude and speed ahead of the Judsons' plane, and the weather was rapidly changing. While there were changes within the line of weather associated with SIGMET 23C, the district court found that the

general structure of the line did not change throughout the Judsons' flight, so a report from a plane that had recently gone through the weather line was helpful.

The appellants next claim that regardless of Dech's duty to issue observed/reported weather, he also had a duty under the FAA Air Traffic Control Manual to provide vectoring services to pilot Judson. The ATCM says that controllers should vector aircraft "for separation, safety, noise abatement, operational advantage, or when a pilot requests." But as the district court found, the vector recommended by the appellants' air traffic control expert would have sent pilot Judson directly into another convective cell, and the only reported turbulence in the area was light turbulence. On this record, the district court correctly concluded that Dech was not required to provide vectoring to pilot Judson for safety reasons because he did not perceive any immediate safety issue.

In short, we conclude that the district court did not err in determining that Dech had no duty to provide pilot Judson with observed weather or vectoring assistance, and, thus, did not breach any duty by failing to do so. West, 172 S.W.3d at 550.

### III.

Moreover, even if the district court erred in its legal conclusion that Dech owed no duty to issue observed weather or vector the Judsons' plane, we would affirm because its factual finding that Dech's conduct did not cause the accident

was not clearly erroneous. Cause in fact means a plaintiff would not have suffered loss or injury but for the defendant's conduct. King v. Anderson Cty., 419 S.W.3d 232, 246 (Tenn. 2013). Tennessee courts use a three-pronged test to assess proximate cause:

1) the tortfeasor's conduct must have been a 'substantial factor' in bringing about the harm being complained of; and 2) there is no rule or policy that should relieve the wrongdoer from liability because of the manner in which the negligence has resulted in the harm; and 3) the harm giving rise to the action could have reasonably been foreseen or anticipated by a person of ordinary intelligence and prudence.

Id. at 247.

The appellants argue that the district court clearly erred in finding that a mechanical defect could have caused the Judsons' plane to break apart in flight because no party argued that a mechanical defect contributed to the accident. However, the district court did not find that a mechanical defect caused the in-flight breakup. Rather, it listed a mechanical defect as an example of a factor that could have been responsible for the accident because the appellants failed to show that weather was the cause. Because the district court made no factual finding as to whether a mechanical defect caused the accident, its mention of the phrase was not clear error. Superior Const. Co., 445 F.3d at 1339.

As for the appellants' argument that the evidence clearly showed that the plane entered an area of extreme precipitation and encountered severe to extreme

turbulence before its breakup, we disagree. Evidence indicated that, generally, extreme precipitation can cause extreme turbulence, but the appellants presented nothing to show that the Judsons' plane experienced extreme turbulence. The only information about turbulence during the flight came from the Cirrus PIREP, which said that that plane experienced light turbulence. The appellants point to the 15 miles of wreckage scatter in support of the theory that weather caused the in-flight breakup, and cite a defense expert's testimony that a pilot-induced accident usually results in wreckage scatter of less than one mile. But the expert did not testify about whether wide wreckage scatter was possible in a pilot-induced accident or an accident caused by a factor other than weather. This fact alone does not leave us "with a definite and firm conviction that a mistake has been committed" as to the district court's factual finding on causation. Id.

Finally, we are unpersuaded by the appellants' argument that expert testimony showed that weather caused the plane's breakup. The appellants' experts testified that strong updrafts in tall convective cells caused the plane to break apart. In response, defense experts challenged the appellants' expert testimony regarding the strength of the updrafts, the calculations used by the appellants' experts for determining the strength of the updrafts and gust loading, and the standard weight of the plane used in the calculations. The district court found that defense counsel and experts successfully challenged the appellants'



expert testimony, and the appellants' experts failed to demonstrate that weather caused the breakup of the Judsons' plane.

We give "due regard to the trial court's opportunity to judge the witnesses' credibility." Fed. R. Civ. P. 52(a). A trial court's decision to credit the plausible testimony of one witness over another, "each of whom has told a coherent and facially plausible story that is not contradicted by extrinsic evidence, . . . can virtually never be clear error." Anderson v. City of Bessemer City, 470 U.S. 564, 575 (1985). Because "[a]ppellate courts reviewing a cold record give particular deference to credibility determinations of a fact-finder who had the opportunity to see live testimony," Owens v. Wainwright, 698 F.2d 1111, 1113 (11th Cir. 1983), we do not second guess the court's judgments. The appellants have not shown that the testimony of the defense experts is facially implausible or contradicted by extrinsic evidence. Thus, the district court did not clearly err in crediting their testimony over the appellants' expert testimony. Anderson, 470 U.S. at 575.

**AFFIRMED.**